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Influence of Resource Bricolage on Entrepreneurial Orientation in Family Firms in Western Province, Sri Lanka: The Moderating Role of Family Member Characteristics

D.M. Mudalige

Department of Industrial Management, University of Moratuwa

Email: darshanadm@uom.lk

ABSTRACT

Startups often have a larger chance of failing than more established businesses. Similarly, firms owned by family members have the unique characteristic of getting heavy pressure from family members in business decisions and tend to be less risk-taking. From a resource-based perspective, previous research has shown how resource bricolage plays a role in influencing a firm's entrepreneurial orientation. This research expands the past research by theorizing and analyzing the effect of entrepreneurial bricolage on entrepreneurial orientation in family firms. Using data of 79 family-owned firms in the Western Province of Sri Lanka, it was discovered that resource bricolage has a significant positive influence on entrepreneurial orientation when start-ups encounter resource restrictions, and the link is negatively moderated by the top management team's heterogeneity and behavioral integration. The findings should theoretically help start-ups, mainly family firms to improve their entrepreneurial attitudes, overcome resource limitations and achieve smooth survival and growth.

Keywords: Resource bricolage, entrepreneurial orientation, behavioral integration, family firms

1. Introduction

More often than not, startups have a greater chance of failing than more established companies. Due to disadvantages brought on by newness, small businesses experience greater levels of technological and market unpredictability. Due to the lack of

performance records and information asymmetry that makes it extremely difficult for funding institutions to evaluate entrepreneurs, it is tough for start-ups to get external resources (Xiumei and Yupeng, 2010). According to research such as Wiklund and Shepherd (2003), in an unpredictable environment, developing an entrepreneurial orientation can successfully improve dynamic capabilities, enterprise development, and firm performance. It is clear that the focus on entrepreneurship orientation is crucial for start-ups. Although researchers have established frameworks involving firms' internal resources, and acknowledged the significance of resources for entrepreneurial orientation, the majority of research efforts on entrepreneurial orientation are restricted to entrepreneurial characteristics and internal resources. As a result, past research is unable to offer a viable solution to the issue of resource scarcity in the entrepreneurship journey and how resources are used and optimized (Tajeddini et al. 2023; Sun, Du, and Ding, 2020). A few gaps in the research literature need to be addressed, despite the fact that EO and EB emerged as sources of competitive advantage to deal with resource constraints. A new business model can be developed by merging existing resources, according to the EB approach, however, it is unclear how entrepreneurs can repurpose these resources to gain a competitive edge (Do Vale et al., 2021). According to the literature, several facets of the bricolage theory have not yet been thoroughly investigated, particularly in the context of developing countries (Scazziota et al., 2020). In a nutshell, the success of many entrepreneurs and small firms is not due to the availability of unique and valuable resources, but their ability to modify and use current resources effectively and to recombine assets in an unusual manner to respond to changes in the business environment.

Resource Bricolage (RB) is a technique used by entrepreneurs to address new business possibilities or obstacles by modifying and using current resources, (Baker & Nelson, 2005). Young businesses may better manage market instability, endure resource shortages, and perhaps even grow, thanks to successful bricolage (Lomberg et al., 2017). Although it is clear that entrepreneurial bricolage impacts entrepreneurial orientation, the mechanism is yet to be investigated to a satisfactory level in the literature.

For the past 10 years, bricolage has been one of the essential concepts in entrepreneurship study to understand entrepreneurs' complex behavior and ways of

resource development and utilization (Digan, Sahi, Mantok, & Patel, 2019). Making dues by combining the resources at hand to solve new challenges and seize new opportunities is known as bricolage (Baker & Nelson, 2005). Just a small number of studies have applied it to entrepreneurship in developing countries, despite the fact that it has been widely researched in the contexts of entrepreneurship in developed countries (Bojica, Ruiz Jiménez, Ruiz Nava & Fuentes-Fuentes, 2018). Given the unique resource scarcity situation in developing countries, this research argues that bricolage plays a more significant role in shaping the entrepreneurial orientation of developing countries. The resource bricolage perspective gives a new theoretical perspective for breaking the resource constraints of SMEs.

The second essential component in developing research on the relationship between resource bricolage and entrepreneurial attitude is the inclusion of relevant organizational attributes. Each organization's top management team makes decisions about how to carry out its corporate strategy and is an essential component of all business operations. The upper echelons theory's theoretical extension demonstrates that the top management team's traits—including age, career path, previous professional experience, education, socioeconomic background, economic standing, group features, etc.—are crucial organizational determinants that influence entrepreneurial attitude in small firms (Yang & Wang, 2014).

It is believed that resource bricolage has a direct impact on shaping entrepreneurial attitude, but several factors are found to moderate the relationship. Learning Orientation (An, Zhao, Cao, Zhang, & Liu, 2018), psychological capital and top management team heterogeneity, and top management team behavioral integration (Xiaobao, Rui, Jiewei & Xiaofan, 2022) are some of the moderators of interest in recent past.

This study focuses only on family firms as the study sample. It can be seen from past research that family team characteristics have a stronger impact in family firms than non-family member set-up (Alayo, Maseda, Iturralde & Arzubiaga, 2019). This research focuses on the impact of resource bricolage on entrepreneurial orientation in family-owned start-ups. In addition, the relationship between resource bricolage and entrepreneurial orientation is modified by the top management team’s decisions, therefore Family member characteristics are taken as the moderating variable.

This research aims to answer the following research questions.

1. Does resource bricolage affect entrepreneurial orientation in family-owned start-ups in the Western Province of Sri Lanka?

2. Does family member heterogeneity and behavioral integration moderate the relationship between resource bricolage affect entrepreneurial orientation in family-owned start-ups in the Western Province of Sri Lanka Sri Lanka?

The following research objectives are formulated based on research questions.

1. To assess whether resource bricolage affects entrepreneurial orientation in family-owned start-ups in the Western Province of Sri Lanka

2. To assess whether family member heterogeneity and behavioral integration moderate the relationship between resource bricolage affect entrepreneurial orientation in family-owned start-ups in the Western Province of Sri Lanka

2. Literature Review

Entrepreneurial Orientation (EO) refers to the "processes, practices, and decision-making activities that lead to new entry" (Lumpkin & Dess, 1996). As per previous research, start-ups with higher EO should be able to develop strategies for entering new markets and dealing with complex environments (Kusumawardhani et al., 2009).

Resources are the foundation of an entrepreneurial attitude and the secret to business success (Barney, 1991). The quantity and type of resources available have a big impact on the development, survival, and success of entrepreneurial businesses (Guohong & Lan, 2018). Prior studies focused on the critical role that resources play in helping businesses build and maintain strategic advantages and came to the conclusion that a company's competitive edge and high performance derive from its inventory of distinctive and diverse resources (Steffens, Baker, Davidsson, & Senyard, 2022). The problem of a start-up's inability to acquire favorable and expensive resources or the problem of insufficient resources can be effectively resolved by integrating and exploiting existing resources. For start-ups, which usually require substantial resources during the start-up and growth phases, the issue is acute. The most noticeable characteristic of entrepreneurial resources is resource scarcity (Wu, Liu & Zhang, 2022). Consequently, accessing and utilizing resources effectively is one of the crucial responsibilities of founders in the entrepreneurial process.

Resource bricolage is a novel way of thinking and acting to address resource issues, according to Baker and Nelson's (2005) article. In accordance with the principle "make the best use of everything," businesses utilize their already available, readily accessible resources to take advantage of opportunities in the environment and overcome obstacles.

Making do with what you have (i.e. resource at hand), “making do” and “combining resources for novel uses” represent the three main components of resource bricolage. "Resource at hand" is the first component. Utilizing already-existing, underutilized resources more effectively for current business processes not only lowers resource acquisition costs but also generates more income from investments and thereby significantly enhances businesses' capacity to take risks (Xiue & Kun, 2018). The term "resources at hand" refers to assets that are already available on the market but have not yet been discovered or utilized for other purposes; these resources are sometimes acquired for less money than typical alternatives. Making do indicates that a company will respond quickly to capture chances based on satisfaction rather than optimization. The third component, "combination of resources for new purposes," refers to fusing resources that had previously been employed for different objectives in creative ways to achieve new objectives (Liang & Xinglu, 2016). The idea of "Asset orchestration" mentioned in the literature on dynamic capabilities is comparable to the third element.

As per the Dynamic Capability View and Resource Based View, RB and EO can be construed as distinct dynamic capabilities that permit organizations to utilize resources efficiently and effectively (Tajeddini et al., 2023).

Based on the above argument, the following hypothesis can be formulated.

H1: There is a significant positive relationship between resource bricolage and entrepreneurial orientation

Upper echelons theory, which was developed by Hambrick and Mason (1984) was adopted as the main underpinning theory for the conceptual framework development. Upper echelons theory states that when studying resource strategies, one should examine the subject (i.e. people involved in) of decision-making, that is, top management team. Different managers choose different strategies and perceive the information differently when confronted with the same organizational environment and strategic information (Carpenter et al., 2004). Second, the top managers' prior

experiences, values, perspectives, and personal traits account for the discrepancies. Hambrick and Mason (1984) contend that in order to comprehend why a corporation chooses one course of action over another, a better understanding of its senior management is required. The hypothesis explains why start-ups with identical resource limitations could have different chances for survival and expansion.

Because the top management team in family firms is typically composed of family members responsible for strategy formulation, planning, and implementation, the background characteristics of a team are closely related to strategy planning and implementation of the firm (Xinming & Huan, 2021). They are in charge of running and managing the start-up, and they also have higher control and decision-making authority because they are tied to the entrepreneur in the family bond (Hambrick, 2007). As a result, the firm's resource distribution will be impacted by the family members' decision-making process. This study integrates family member characteristics namely, behavioral integration and heterogeneity, who are in the top management team, into a single research framework. The perspective of resource bricolage and the upper echelon theory can both be further deepened and expanded by the suggested conceptual framework.

When a family is very diverse, the team's knowledge, skills, and experience are also very diverse. Additionally, diversity shows that the team has a diverse social network and ties, which may make it possible for the firm to access additional resources and talent (Heyden et al., 2013). On the other side, when there is little variation in the management team, it might be difficult to have enough external relationships to get strategic resources. It is insufficient to depend just on static data; demographic characteristics and inter-family behavioral interactions are also crucial. The disadvantage of frequent information sharing among team members is that everyone will have access to the same resources, biases, and perceptions (Simsek et al., 2005). A high degree of interpersonal integration reflects frequent information sharing among team members. In this situation, innovative utilization of resources is difficult. Individual team members' ideas on resource acquisition are welcome when there is a low level of psychological integration. However, because cooperative decision-making is largely based on risk minimization, teams usually reach a cautious consensus. Such

a team's disrespect for idle or abandoned resources hinders the usage and buildup of resources.

Based on the above argument, the following hypothesis can be formulated

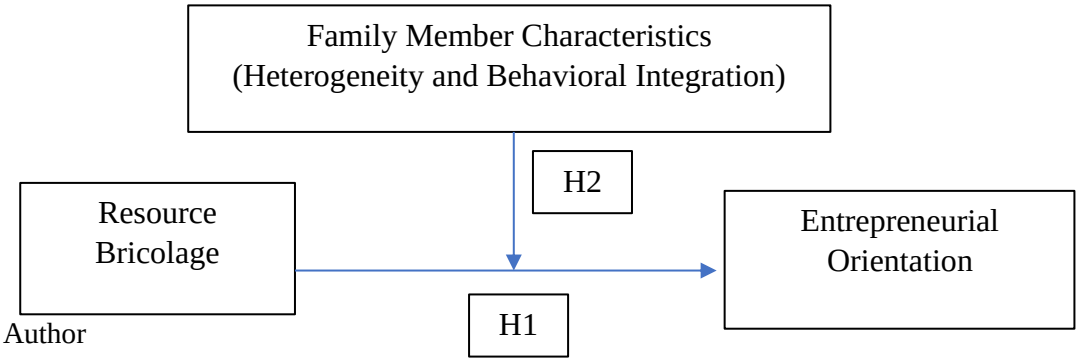
H2: Family member characteristics (heterogeneity and behavioral integration) significantly negatively moderate the relationship between resource bricolage and entrepreneurial orientation

The resource-based view theory contends that a firm can achieve a competitive advantage only if the strategic resources are leveraged to help deter competitors (Barney, 1991). EO and RB allow SMEs that are suffering from a dearth of resources to use existing resources strategically. The main underpinning theories of the conceptual framework are RBV and upper echelons theory.

3. Methodology

The research is based on positivistic epistemology. Because of the explanatory character of this study, a quantitative research method was used to gather primary data using survey questionnaires. Based on the measures used in earlier research, a survey questionnaire was created. The population of the study is all family-owned SMEs in Western Province, Sri Lanka. Although no accurate details about the total number of family-owned SME establishments in Sri Lanka, it can be assumed that 80% of the total SMEs in Sri Lanka are family-owned (Echelon, 2022).

Figure 1: Conceptual Framework of the Study



Source: Author

The study's participants are all SMEs in Sri Lanka's Western Province. The annual registration lists kept by the Provincial Department of Business Names Registration, Western Province, served as the sample frame for this study. The responder was chosen at random from the sample frame using a straightforward random sampling technique. From the company registrations made between 2015 and 2020, 100 business entities were chosen at random. The Sri Lanka Standards Institute (SLSI) definition of SME was then evaluated in the questionnaire using a criterion of less than 250 workers. Also, it was asked whether the SME is family-owned or not in the questionnaire. Responses not complying with the above criteria were to be removed in the analysis. None was found anyway.

The survey questionnaire for this study is divided into four components, the first of which examines the respondent's organizational features and demographic profile. All the independent, dependent, and moderating factors are covered in the second section's questions. The Likert scale with five points was used to measure the variables.

Eight items that were modified from the three-dimensional work of Senyard et al. (2014) were used to quantify resource bricolage. Four items taken from the study of Heyden et al. (2013) were used to measure the variety of family member characteristics. The scale evaluates complementarity, functional background, experience, and professional knowledge field. Simsek et al. (2005) employed nine measures to test the family member feature of behavioral integration, which included three dimensions.

This study modified a more modern and well tested scale to evaluate EO. As our research focuses solely on entrepreneurs rather than corporate EO, a scale designed particularly to evaluate individual EO would boost the validity of the study. The scale was created in 2012 by Bolton and Lane. According to various recent research publications, this scale has been employed in a reasonable manner and has a high R2 value (DeGennaro, Wright, & Panza, 2015).

A pilot study was carried out prior to the actual distribution of the questionnaires to ascertain the respondents' comprehension of the items and to validate the internal reliability. For this pilot project, a total of 10 entrepreneurs were chosen on the basis of convenience. This guaranteed that the targeted group understand the questionnaire's items.

Both online and offline means were used to disseminate a total of 100 survey forms. Email was used to send surveys that were created using Google Forms. For individuals who didn't reply to emails after a month, some surveys were also physically given to the business owner. The confidentiality of the information respondents gave was guaranteed, and respondents were also assured anonymity. A total of 79 observations make up the final answer, or a response rate of 79%. The conceptual framework and its hypothesis were tested using SPSS and SMARTPLS. Although SEM-PLS are mainly used for sample sizes more than 100, there is evidence that its results are robust in small sample sizes with moderate deviations from normality (Goodhue, Lewis & Thompson, 2012; Fauzi, 2022).

4. Results and Discussion

There were 79 valid questionnaires from respondents for this study. Bennett (2001) claimed that when more than 10% of the data are missing, statistical analysis may be skewed. Since fewer than 5% of the data were missing, it was thought that this was not a significant problem, hence imputation methods were not used (Schafer, 1999). In the SPSS program, the missing data was identified as "999" and was handled as such throughout the study.

By calculating the percentage of each category, descriptive statistics were used to evaluate the demographic traits. Male entrepreneurs outweigh female entrepreneurs in Sri Lanka, according to the analysis of demographic traits. The majority of entrepreneurs are in the 20 to 40 age group. Only 5% of the interviewees had a degree or higher level of education.

Table 1 summarizes the reliability test of all measures after factor analysis has been done. As shown, the Cronbach alphas of the measures were above the lower limit of acceptability is $\alpha >= 0.7$ (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014).

Table 1: Reliability Coefficients for Variables in the Study

Variables	Reliability
Dependent Variable (DV)	
• Entrepreneurial Orientation (EO)	.832
Independent Variable (IV)	
• Resource Bricolage (RB)	0.715
Moderating Variable (MV)	
• Family member characteristics (heterogeneity and behavioural integration)	0.703

Source: Survey Data

As per the Shapiro-Wilk test of normality no significant exceptions were reported to the assumption of normal distribution.

For the outer measurement model, factor component loadings of at least 0.50 are typically regarded as important (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). This research's outer measurement model indicators all met the requirement of having a minimum value of 0.5. According to Fornell and Larcker (1981), the Average Variance Extracted (AVE) level of higher than 0.5 is a necessary and sufficient condition for the instrument's convergent validity. All AVEs for the constructs are greater than 0.5. To execute the SMART PLS program, 500 bootstrap samples were used. The results are summarized in Table 2.

Table 2: Summary of structural model testing

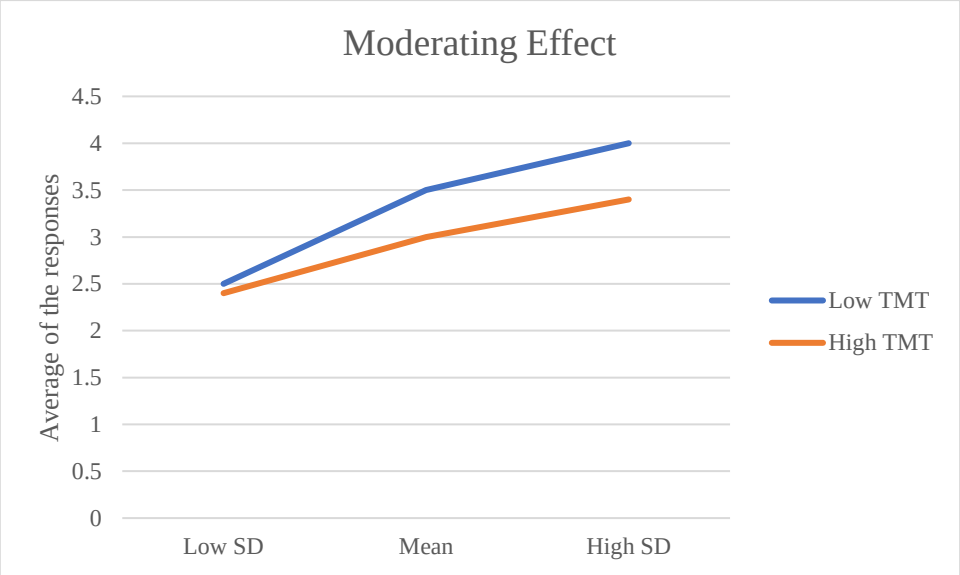
Hypothesis	**Path**	**Path Coefficient**	**Standard Error**	**t statistics**	**Significance**
H1	RB>EO	0.4350	0.0573	7.818	Significant (p = 0.014

Source: Survey Data

Further, significance of the moderating effect was analyzed. The results showed that a significant negative moderating effect can be observed (b= -0.104, t= -2.141, p = 0.016). This shows that when heterogeneity and behavioral integration family member team is increased, the relationship between resource bricolage and EO will be weakened.

To test the moderating impact of various levels of heterogeneity, the resource bricolage findings were divided into three groups based on the average value plus or minus one standard deviation. Resource bricolage findings are shown on the X-axis (in three groups), and the EO results are shown on the Y-axis for each group at low family member variety or high family member variety. The impact slope visualization was generated using the data analysis. It demonstrates that the influence of resource bricolage on EO is higher under low heterogeneity settings.

Figure 2: Analysis of Moderating Effect



Source: Survey Data

Previous research has established that resource bricolage favorably affects firm entrepreneurship through innovation capability as well as business innovation and other outcome variables (Senyard et al., 2014). This research complements such research by confirming that resource bricolage positively influences the entrepreneurial orientation. The success of new start-ups is largely attributable to the efficient restructuring and use of already available resources (Guohong & Lan, 2018). When start-ups exhibit more bricolage behaviors, they can quickly evaluate the market environment and use existing low-cost resources to provide more resource choices, increasing their capacity to withstand risk and fostering business innovation. The research has partially demonstrated that resource bricolage is a significant foundation on which new businesses can develop their entrepreneurial orientation.

This paper supports the notion of positive influence of resource bricolage on EO in start-ups through a quantitative analysis in Sri Lankan context. The main challenge for start-ups is a lack of resources, which also plays a significant role in the low success rate and brief lifespan of start-ups. Resource bricolage is an efficient method for start-ups to get around their resource limitations and gives them a way to effectively conduct entrepreneurial activities and produce economic value (Xiaobao, Rui, Jiewei & Xiaofan, 2022). When start-ups are unable to manage all resources, bricolage can help

entrepreneurs make the best possible use of already available resources and get around resource limitations. From this viewpoint, this paper offers a fresh concept for startups to deal with the resource scarcity problem, and the study findings contribute to the advancement of entrepreneurship research topics in developing countries.

Based on upper echelons theory and following the recent research of Xiaobao, Rui, Jiewei and Xiaofan (2022), the current paper considers family member heterogeneity and family member behavioral integration to explore the moderating effect between resource bricolage and entrepreneurial orientation. Most researchers use the upper echelons theory to examine how family member characteristics heterogeneity affects resource acquisition, performance, and business innovation (Zhou & Rosini, 2015). Previous research examined the effects of family member characteristics on firm innovation and entrepreneurial success, but did not reach a consensus (Baoshan & Zhaorui, 2019).

The negative moderating effect of family member heterogeneity and behavioral integration shows that for the acquisition of resources and the realization of entrepreneurial goals, just having a diversified management team or mere information sharing is not sufficient. Joint decision-making should be promoted only if differences between team members/family members are respected, and consensus is reached after a fair evaluation of ideas.

5. Limitations and Future Research

As for the limitations, the study's findings only apply to new businesses because it only examines the impact of resource bricolage approach on entrepreneurial orientation during the start-up phase. Future studies might examine how resource bricolage affects entrepreneurial orientation at different development stages. Second, the research only uses one Sri Lankan start-ups in Western Province as samples. This is mainly due to the fact 45% of Sri Lankan GDP is contributed by SMEs in Western Province (Gamage, 2014). Future studies can do comparative studies to identify differences in different country contexts.

6. Conclusion

Businesses that are actively owned, run, and managed by two or more members of a single family have a specific set of traits that distinguish them apart from normal start-ups and need extra care in the research process. According to previous studies, resources have a crucial influence in shaping entrepreneurial orientation. The effect of resource bricolage on entrepreneurial orientation was postulated and evaluated in this study. Based on data from 79 start-ups in Sri Lanka, it was discovered that family member characteristics of the management team negatively moderate the relationship between entrepreneurial orientation and resource bricolage strategy when SMEs face resource constraints.

7. Implications of the Study

The main challenge for start-ups in developing countries is the lack of resources, which also plays a significant role in the low success rate and brief lifespan of start-ups. Resource bricolage is an efficient method for start-ups to get around their resource limitations and gives them a way to effectively conduct entrepreneurial activities and produce economic value. When start-ups are unable to manage all resources, bricolage can help entrepreneurs make the best possible use of already available resources and overcome resource limitations.

This article offers start-ups a fresh thought and a workable solution to the resource problem from the point of entrepreneurship. This article explains that through creativity and improvisation, entrepreneurs refuse to be constrained by limitations, thereby representing a solid way to overcome resource constraints evolving from the environment. Existing research has demonstrated the importance of motivating and energizing the role of Entrepreneurial Passion because it boosts resource bricolage and entrepreneurial orientation. Whereas others see primarily limitations, a passionate entrepreneur is likely to see more opportunities for resource usage. Thus, policy makers and education institutes engaged in entrepreneurship teaching and training can contemplate about developing ways to encourage individuals on combining resources at hand and providing the desired contribution to the community in which they operate.

Through improvisation and trial and error, which are key ingredients of resource bricolage, entrepreneurs can provide experience-based, implicit knowledge which supports the developing of novel products or services. The concept of resource bricolage can be extended to organizational level intrapreneurship as well. Resources at hand may be slack resources and organizations may encourage employees to come up with alternative use of slack resources. The negative moderation outcome leads to the contemplation whether a diversified family management team with strong ties actually benefits the entrepreneurial nature of the firm.

According to Rathnayaka (2019), resource bricolage improves social businesses' capacity for entrepreneurial innovation. Entrepreneurial resource bricolage has a major impact on fostering social innovations, but entrepreneurial alertness moderates the process, according to research by Rathnayaka, Jayawardhana, and Perera (2022). In the Sri Lankan setting, family businesses appear to do better with a less diversified staff with weak relationships that supports entrepreneur authoritarianism. However, this has to be confirmed by more study.

REFERENCES

Alayo, M., Maseda, A., Iturralde, T., and Arzubiaga, U. (2019), "Internationalization and entrepreneurial orientation of family SMEs: The influence of the family character". International Business Review, Vol. 28 No 1, pp.48-59.

An, W., Zhao, X., Cao, Z., Zhang, J., and Liu, H. (2018), "How bricolage drives corporate entrepreneurship: The roles of opportunity identification and learning orientation". Journal of Product Innovation Management, Vol. 35 No 1, pp.49-65.

Baker, T., and Nelson, R. E. (2005), "Creating something from nothing: Resource construction through entrepreneurial bricolage". Administrative Science Quarterly, Vol. 50 No 3, pp.329-366.

Baoshan G. and Zhaorui W. (2019), "Entrepreneurial teams behavioral integration, relationship learning and entrepreneurial performance: The moderating role of entrepreneurial team behavioral complexity". South China Journal of Economics, Vol. 10, pp. 34–46. doi: 10.19592/j.cnki.scje.370758

Barney, J. (1991), "Firm resources and sustained competitive advantage". Journal of Management, Vol. 17 No 1, pp.99-120.

Bojica, A. M., Ruiz Jiménez, J. M., Ruiz Nava, J. A., and Fuentes-Fuentes, M. M. (2018), "Bricolage and growth in social entrepreneurship organisations". Entrepreneurship & Regional Development, Vol. 30 No3-4, pp.362-389.

Bolton, D. L., and Lane, M. D. (2012), "Individual entrepreneurial orientation: Development of a measurement instrument". Education+ Training, Vol. 54 No 2/3, pp.219-233.

Carpenter M. A., Geletkanycz M. A. and Sanders W. G. (2004), "Upper echelons research revisited: antecedents, elements, and consequences of top management team composition". Journal of Management. Vol. 30, pp.749–778. doi: 10.1016/j.jm.2004.06.001

DeGennaro, M. P., Wright, C. W., and Panza, N. R. (2016), "Measuring Entrepreneurial Orientation in an assessment center: An individual level-of-analysis study". The Psychologist-Manager Journal, Vol. 19 No 1, pp.1-15

Digan, S. P., Sahi, G. K., Mantok, S., and Patel, P. C. (2019), "Women's perceived empowerment in entrepreneurial efforts: the role of bricolage and psychological capital". Journal of Small Business Management, Vol. 57 No 1, pp.206-229.

Do Vale, G., Collin-Lachaud, I. and Lecocq, X. (2021), "Micro-level practices of bricolage during business model innovation process: The case of digital transformation towards omni-channel retailing" Scandinavian Journal of Management, Vol. 37 No 2, pp.101154.

Hair Jr, J., Sarstedt, M., Hopkins, L., and Kuppelwieser, V. (2014), "Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research". European Business Review, Vol. 26 No 2, pp.106-121.

Fornell, C., and Larcker, D. F. (1981), "Structural equation models with unobservable variables and measurement error", Algebra and statistics.

Guohong W. and Lan Q. (2018), "Internal mechanism for the transformation from entrepreneurial orientation to new venture growth: case study based on entrepreneurial Bricolage's intermediating effect". Software Science Magazine, Vol. 5, pp.135–146. doi: 10.3969/j.issn.1002-9753.2018.05.013

Hambrick, D. C. (2007), "Upper echelons theory: An update". Academy of Management Review, Vol. 32 No 2, pp.334-343.

Hambrick, D. C., and Mason, P. A. (1984), "Upper echelons: The organization as a reflection of its top managers". Academy of Management Review, Vol. 9 No 2, pp.193-206.

Heyden M., Van Doorn S., Reimer M., Van Den Bosch F. and Volberda H. (2013), "Perceived environmental dynamism, relative competitive performance, and top management team heterogeneity: examining correlates of upper echelons' advice-seeking". Organizational Studies, Vol. 34, pp.1327–1356. doi: 10.1177/0170840612470229

Kusumawardhani, A., McCarthy, G. and Perera, N. (2009), "Framework of entrepreneurial orientation and networking: a study of SMEs performance in a developing country", Proceedings of the Australian and New Zealand Academy of Management Conference, pp.1-16.

Liang W. and Xinglu Z. (2016), "Ambidextrous innovation and firm performance: the mediating role of resource bricolage". Chinese Journal of Management, Vo.13, pp.425–431.

Lomberg, C., Urbig, D., Stöckmann, C., Marino, L. D., and Dickson, P. H. (2017), "Entrepreneurial orientation: The dimensions' shared effects in explaining firm performance". Entrepreneurship Theory and Practice, Vol. 41 No 6, pp.973-998.

Lumpkin, G. T. and Dess, G. G. (1996), "Clarifying the entrepreneurial orientation construct and linking it to performance". Academy of Management Review, Vol. 21 No 1, pp.135-172.

Scazziota, V. V., Andreassi, T., Serra, F. A. R., and Guerrazzi, L. (2020), "Expanding knowledge frontiers in entrepreneurship: examining bricolage and

effectuation". International Journal of Entrepreneurial Behavior & Research, Vol. 26 No 5, pp.1043-1065.

Schafer, J. L. (1999). Multiple imputation: a primer. Statistical methods in medical research, 8(1), 3-15.

Senyard J., Baker T., Steffens P. and Davidsson P. (2014), "Bricolage as a path to innovativeness for resource-constrained new firms". Journal of Production and Innovation Management. Vol. 31, pp. 211–230. doi: 10.1111/jpim.12091

Simsek Z., Veiga J., Lubatkin M. and Dino R. (2005), "Modeling the multilevel determinants of top management team behavioral integration". Academy of Management, Vol. 48, pp. 69–84. doi: 10.5465/AMJ.2005.15993139

Steffens, P. R., Baker, T., Davidsson, P. and Senyard, J. M. (2022), "When is less more? Boundary conditions of effective entrepreneurial bricolage". Journal of Management, Vol. 5 No 1, pp.25-35. doi: 01492063221077210.

Sun, Y., Du, S., and Ding, Y. (2020), "The relationship between slack resources, resource bricolage, and entrepreneurial opportunity identification—Based on resource opportunity perspective" Sustainability, Vol. 12 No 3, pp.1199-1215

Tajeddini, K., Budur, T., Gamage, T. C., Demir, A., Zaim, H., and Topal, R. (2023), "Impact of diversity management on innovative work behavior: mediating role of human resource management and affective commitment". Journal of Management Development, Vol. 42 No 1, pp. 29-53.

Wiklund, J., and Shepherd, D. (2003), "Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses" Strategic Management Journal, Vol. 24 No 13, pp. 1307-1314.

Wu, L., Liu, H., and Zhang, J. (2022), "How does bricolage release the tensions in organisational ambidexterity for resource-constrained SMEs? A moderated mediation framework". Technology Analysis & Strategic Management, Vol. 3, pp.1-14.

Xiaobao, P., Rui, G., Jiewei, Z. and Xiaofan, S. (2022), "The impact of resource bricolage on entrepreneurial orientation in start-ups: the moderating roles of TMT heterogeneity and TMT behavioral integration". Frontiers in Psychology, Vol. 13, No 1, pp.1-17

Xinming D. and Huan L. (2021), "TMT heterogeneity, competitive repertoire and Firm's market performance: empirical study from China's household appliance industry". Nankai Business Review International, Vol. 24, pp.103–117. doi: 10.3969/j.issn.1008-3448.2021.04.011

Xiue Z. and Kun Z. (2018), "Impact of entrepreneurial orientation on new social enterprises performance–the mediating role of resource bricolage and moderating role of regulation". Science and Technology Progress Policy, Vol. 35, pp.91–99.

Xiumei, Z., and Yupeng, F. (2010), "Empirical analysis relationship charateristics, resource acquisition and new firm performance". Nankai Business Review, Vol. 37 No 1, pp.125-135.

Yang, L. and Wang, D. (2014), "The impacts of top management team characteristics on entrepreneurial strategic orientation: The moderating effects of industrial environment and corporate ownership". Management Decision. Vol. 6 No 1, pp.23-42

Zhou W. and Rosini E. (2015), "Entrepreneurial team diversity and performance: Toward an integrated model". Entrepreneurship Research Journal. Vol. 5, pp.31–60. doi: 10.1515/erj-2014-0005